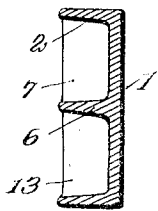
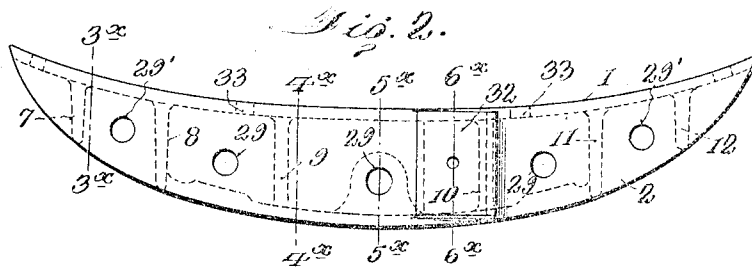
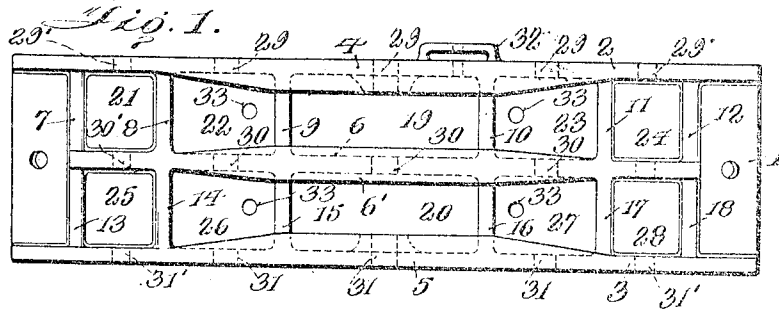


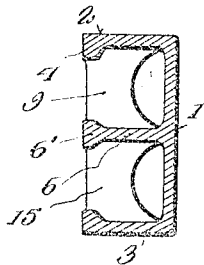
W. E. MOORE.  
 COMBINED DRAW HEAD AND CAR BUFFER.  
 APPLICATION FILED FEB. 29, 1912.

1,053,201.

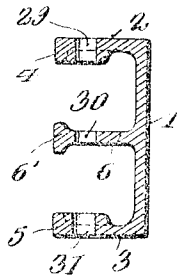
Patented Feb. 18, 1913.



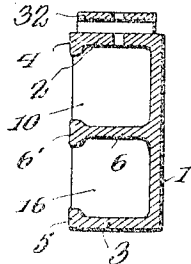
*Fig. 3.*



*Fig. 4.*



*Fig. 5.*



*Fig. 6.*

WITNESSES

*Helgeott Murray*  
*E. J. Marshall.*

INVENTOR

*W. E. Moore*  
 BY *John H. Hall*  
 his ATTORNEY.

# UNITED STATES PATENT OFFICE.

WILLIAM E. MOORE, OF PITTSBURGH, PENNSYLVANIA.

COMBINED DRAW-HEAD AND CAR-BUFFER.

1,053,201.

Specification of Letters Patent.

Patented Feb. 18, 1913.

Application filed February 29, 1912. Serial No. 680,629.

*To all whom it may concern:*

Be it known that I, WILLIAM E. MOORE, a citizen of the United States, residing at Pittsburgh, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Combined Draw-Heads and Car-Buffers, of which the following is a specification.

The primary object of this invention is the production of a combined car buffer and draw-head which provides for the coupling together of cars of different as well as of the same height of draw-head, and which also provides for certain emergency cases such, for example, as pulling derailed cars back on the track, and for any other use where it is desirable to provide means for coupling to the draw-head other than at the usual central coupling connection.

In order to more particularly describe my invention, reference will be had to the accompanying drawing in which—

Figure 1, represents in front elevation one specific embodiment of my invention; Fig. 2, a top plan view thereof; Fig. 3, a section on the line 3\*-3\* Fig. 2, looking to the left; Fig. 4, a section on the line 4\*-4\* Fig. 2, looking to the left; Fig. 5, a section on the line 5\*-5\* Fig. 2, looking either to the right or left, and Fig. 6, a section on the line 6\*-6\* Fig. 2, looking to the right.

My invention, in the form shown, comprises an integral metal casting having, among other parts, a back plate or elongated web 1, from the upper and lower longitudinal edges of which extend forwardly two flanges 2 and 3 respectively, the said flanges being thickened at their outer edges as at 4 and 5, in order to reinforce them for a certain distance intermediate of their ends where they are subjected to the greatest bending moment. Intermediate of these flanges 2 and 3, is a longitudinal flange 6, extending forwardly from the back plate 1, and reinforced by a T-head 6', along a portion corresponding to the reinforced portions 4 and 5 of the flanges 2 and 3, and for a similar purpose.

Extending forwardly from the back or web 1 of the casting, are a plurality of transverse web flanges 7, 8, 9, 10, 11 and 12, connecting the flanges 2 and 6, and a similar series of web flanges 13, 14, 15, 16, 17 and 18, connecting the flanges 3 and 6, the said flanges dividing the casting into interme-

diate superposed pockets 19 and 20, and laterally adjacent superposed pockets 21, 22, 23, 24, 25, 26, 27 and 28, all of which are closed at their backs by the plate 1, but which open forwardly. Each of the three flanges 2, 3, and 6, is provided with a series of coupling pin openings 29, 30 and 31.

In coupling the cars the coupling links or other means is inserted through the forward openings of the pockets and connected with the coupling pins inserted through the openings 29, 30 and 31. For the usual straight ahead pull the pockets 19 and 20 would receive the coupling means. If it is desired to pull the car sidewise as in the case of derailment or for any other purpose the coupling means may be inserted in any of the pockets on either side of the central pockets 19 and 20. Though, perhaps rarely needed in practice, I may also provide the end pockets 21, 24, 25 and 28 with coupling pin openings 29', 30' and 31'.

The housing 32 on the top of the buffer is for the purpose of receiving a trolley retriever, a device now in common use on trolley cars for taking up the slack in the rope attached to the trolley pole, when the trolley gets off the wire. The holes 33 represent bolt holes for securing the buffer to the car frame.

The longitudinal flanges 2, 3 and 6 are preferably made with their outer edges convex while the back 1, preferably curves in or forward so that the buffer in top plan is substantially crescent shaped.

While I have herein described one specific embodiment of my invention, it will be understood that various modifications may be made in the structure without departing from the spirit of the invention.

What I claim is:

1. A car buffer having a back plate and a plurality of forwardly extending flanges forming the walls of a plurality of superposed intermediate and laterally adjacent pockets opening forwardly of said buffer and arranged to receive coupling means through said openings.

2. A car buffer, comprising an elongated back plate, longitudinal flanges extending forwardly from said plate, a forwardly extending longitudinal flange formed on said plate intermediate of said flanges, and web flanges extending forwardly from said back plate and transversely between said upper and lower and intermediate flanges, the said

flanges forming the walls of a plurality of superposed intermediate and laterally adjacent pockets opening forwardly of said buffer and arranged to receive coupling means.

3. A car buffer, comprising an elongated back plate, flanges extending forwardly respectively from the upper and lower longitudinal edges of said plate, a forwardly extending longitudinal flange, formed on said plate intermediate of said flanges, and web flanges extending forwardly from said back plate and transversely between said upper and lower and intermediate flanges, the said flanges forming the walls of a plurality of superposed, intermediate and laterally adjacent pockets opening forwardly of said buffer and arranged to receive coupling

means, the said longitudinal flanges having coupling pin openings leading into said pockets.

4. A car buffer having a back plate and a plurality of forwardly extending flanges, stiffened and tied together, to prevent spreading, by means of transverse ribs forming the walls of a plurality of superposed intermediate and laterally adjacent pockets, opening forwardly of said buffer and arranged to receive coupling means through said pockets.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM E. MOORE.

Witnesses:

D. M. McBRIDE,

E. M. BALSINGER.